OCXO2522C-65221-10MHz

High Stability Low Phase noise OCXO

Features and Benefits

High frequency stability (less than ±5 ppb over -40°C to +85°C) Low aging (less than ±0.3 ppb per day) Small Size Packaging

Typical Applications

SATCOM System Cellular Base Stations Radar Applications Stratum 3E clock system

Description

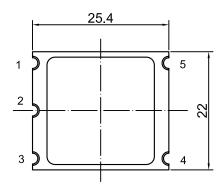
OCXO2522C-65221-10MHz series offers high frequency stability, low long term aging and low phase noise, all in a compact package to suit the different communication needs.

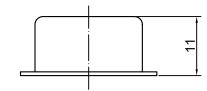
Mechanical Drawing & Pin Connections

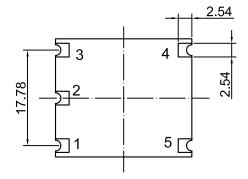
Drawing No:

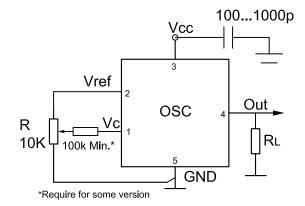
MD140083-1

3









Pin	Signal					
1	Electrical tuning					
2	Reference voltage					
3	+V Supply					
4	RF OUT					
5	GND					

Unit in mm

1mm = 0.0394 inches

Note: 12.7mm height is available



Dynamic Engineers Inc.

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Specifications

Operational Frequency	Oscillator	Sym	Condition		Value		Unit	Note		
Name	· · · · · · · · · · · · · · · · · · ·	•	Condition	Min.		Max.		11010		
Signal Waveform	, ,	F _{nom}			10		MHz			
Laad		<u> </u>			HON	100	T			
H-Level Voltage										
Level Voltage				2.4	TUKONM//TS	ppr I	1/			
Duty Cycle				2.4		0.4				
RissEfall time	Duty Cycle	VL		15						
Power Supply Reference Voltage VEF Output				40						
Reference Voltage VREF Output						10	113			
Supply Voltage		T		2.5		3.1	l v			
Warm-up Time T _{up} At +25°C to Δ/t1-1e-7 / MI-1e-7 180 s ref to freq after 15 min of operation Power Consumption Steady state, +25°C 1200 mW Frequency Adjustment Range Electronic Frequency Control (EFC) Compliance with 10 years aging 0 positive ±0.3 ppm EFC Voltage V _c Description Description ppm EFC Slope Description Description positive Frequency Stability At +25°C air flow 0.5 m/s max 0.5 m/s ma		Vc			3.3					
Steady state, +25°C 1200 mW Frequency Adjustment Range Compliance with 10 years aging ±0.3 ppm Pm Pm Pm Pm Pm Pm P				0.10	0.0					
Warm-up						1200	m\/\	min or operation		
Electronic Frequency Control (EFC)	Power Consumption									
Electronic Frequency Control (EFC)	Frequency Adjustment Range		vvaiiii up			0000	11100			
Section Frequency Control (EFC) Section Section			Compliance with 10		I		1 1			
Prequency Stability	. , ,	.,								
Frequency Stability At +25°C, air flow 0.5m/s max 0.5m/s m		V _c		0		3.1	V			
Versus Operating Temperature Range At +25°C, air flow 0.5m/s max ±5 ppb Initial Tolerance @+25°C V _c @ VREF/2 ±0.01 ±0.1 ppm Versus supply voltage V _s Ref Vcc typ ±0.2 ppb G-Sensitivity Worst direction,0-1kHz vibration BW ±0.3 ±1.0 ppb/G Retrace 24h work after 24h off ±10 ppb Aging Per Day After 30 days of operation ±0.3 ppb Aging 1 st Year operation ±30 ppb Allan Variance 1s 0.5 15 e-12 1Hz -87 dBc 10Hz -117 dBc SSB Phase noise 10Hz -137 dBc 1kHz -137 dBc 1kHz -155 dBc 1kHz -160 <td>EFC Slope</td> <td></td> <td></td> <td></td> <td>positive</td> <td></td> <td></td> <td></td>	EFC Slope				positive					
Netrocology	Frequency Stability									
Versus supply voltage	Versus Operating Temperature Range					±5	ppb			
Worst direction,0-1kHz vibration BW	Initial Tolerance @+25°C		V _c @ VREF / 2	±0.01	±0.1		ppm			
The color of the	Versus supply voltage	Vs	Ref Vcc typ		±0.2					
Aging Per Day After 30 days of operation Aging 1 st Year After 30 days of operation Aging 1 st Year After 30 days of operation Aging 1 st Year After 30 days of operation Barbara	G-Sensitivity			±0.3	±1.0		ppb/G			
After 30 days of operation	Retrace					±10	ppb			
Aging 1 st Year operation	Aging Per Day		After 30 days of			±0.3	ppb			
1Hz	Aging 1 st Year					±30	ppb			
10Hz	Allan Variance		1s	0.5		15	e-12			
SSB Phase noise 100Hz -137 dBc IkHz -155 dBc Environmental, Mechanical Conditions Air flow velocity 0.5m/s max Operating temperature range -40°C to 85°C Storage temperature range -60°C to 85°C Power voltage -0.5V to Vcc+20% Control voltage -0.5V to 6V Humidity Hermetically sealed Mechanical shock Per MIL-STD-202,30G half sine pulse,11mS Vibration Per MIL-STD-202, 10G swept sine 0 to 500Hz Soldering conditions Hand solder only, not reflow compatible. 260°C 10s (on pins)							dBc			
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	Washing conditions						nal enqueh	drving stage		